

CLAIMS

What is claimed is:

1. A compound of formula (I),
 - 5 $(R^2R^3)-A^7-A^8-A^9-A^{10}-A^{11}-A^{12}-A^{13}-A^{14}-A^{15}-A^{16}-A^{17}-A^{18}-A^{19}-A^{20}-A^{21}-A^{22}-A^{23}-A^{24}-A^{25}-A^{26}-A^{27}-$
 $A^{28}-A^{29}-A^{30}-A^{31}-A^{32}-A^{33}-A^{34}-A^{35}-A^{36}-A^{37}-A^{38}-A^{39}-R^1,$
 (I)

wherein

 - A^7 is L-His, Ura, Paa, Pta, Amp, Tma-His, des-amino-His, or deleted;
 - 10 A^8 is Ala, D-Ala, Aib, Acc, N-Me-Ala, N-Me-D-Ala or N-Me-Gly;
 - A^9 is Glu, N-Me-Glu, N-Me-Asp or Asp;
 - A^{10} is Gly, Acc, β -Ala or Aib;
 - A^{11} is Thr or Ser;
 - A^{12} is Phe, Acc, Aic, Aib, 3-Pal, 4-Pal, β -Nal, Cha, Trp or X^1 -Phe;
 - 15 A^{13} is Thr or Ser;
 - A^{14} is Ser or Aib;
 - A^{15} is Asp or Glu;
 - A^{16} is Val, Acc, Aib, Leu, Ile, Tle, Nle, Abu, Ala or Cha;
 - A^{17} is Ser or Thr;
 - 20 A^{18} is Ser or Thr;
 - A^{19} is Tyr, Cha, Phe, 3-Pal, 4-Pal, Acc, β -Nal or X^1 -Phe;
 - A^{20} is Leu, Acc, Aib, Nle, Ile, Cha, Tle, Val, Phe or X^1 -Phe;
 - A^{21} is Glu or Asp;
 - A^{22} is Gly, Acc, β -Ala, Glu or Aib;
 - 25 A^{23} is Gln, Asp, Asn or Glu;
 - A^{24} is Ala, Aib, Val, Abu, Tle or Acc;
 - A^{25} is Ala, Aib, Val, Abu, Tle, Acc, Lys, Arg, hArg, Orn, $HN-CH((CH_2)_n-N(R^{10}R^{11}))-C(O)$ or $HN-CH((CH_2)_6-X^3)-C(O)$;
 - A^{26} is Lys, Arg, hArg, Orn, $HN-CH((CH_2)_n-N(R^{10}R^{11}))-C(O)$ or $HN-CH((CH_2)_6-X^3)-$
 30 $C(O)$;
 - A^{27} is Glu Asp, Leu, Aib or Lys;
 - A^{28} is Phe, Pal, β -Nal, X^1 -Phe, Aic, Acc, Aib, Cha or Trp;
 - A^{29} is Ile, Acc, Aib, Leu, Nle, Cha, Tle, Val, Abu, Ala or Phe;
 - A^{30} is Ala, Aib or Acc;

A³¹ is Trp, β -Nal, 3-Pal, 4-Pal, Phe, Acc, Aib or Cha;

A³² is Leu, Acc, Aib, Nle, Ile, Cha, Tle, Phe, X¹-Phe or Ala;

A³³ is Val, Acc, Aib, Leu, Ile, Tle, Nle, Cha, Ala, Phe, Abu, Lys or X¹-Phe;

A³⁴ is Lys, Arg, hArg, Orn, HN-CH((CH₂)_n-N(R¹⁰R¹¹))-C(O) or HN-CH((CH₂)_e-X³)-C(O);

A³⁵ is Gly, β -Ala, D-Ala, Gaba, Ava, HN-(CH₂)_m-C(O), Aib, Acc or a D-amino acid;

A³⁶ is L- or D-Arg, D- or L-Lys, D- or L-hArg, D- or L-Orn, HN-CH((CH₂)_n-N(R¹⁰R¹¹))-C(O), HN-CH((CH₂)_e-X³)-C(O) or deleted;

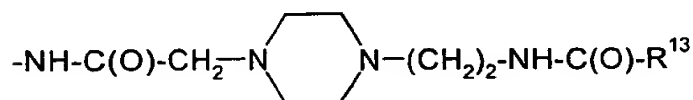
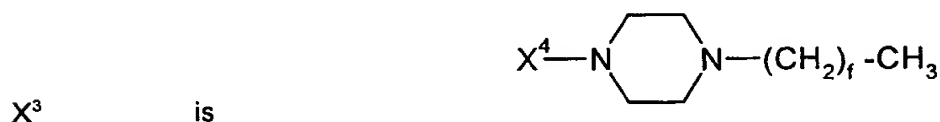
A³⁷ is Gly, β -Ala, Gaba, Ava, Aib, Acc, Ado, Arg, Asp, Aun, Aec, HN-(CH₂)_m-C(O), HN-CH((CH₂)_n-N(R¹⁰R¹¹))-C(O), a D-amino acid, or deleted;

A³⁸ is D- or L-Lys, D- or L-Arg, D- or L-hArg, D- or L-Orn, HN-CH((CH₂)_n-N(R¹⁰R¹¹))-C(O), HN-CH((CH₂)_e-X³)-C(O) Ava, Ado, Aec or deleted;

A³⁹ is D- or L-Lys, D- or L-Arg, HN-CH((CH₂)_n-N(R¹⁰R¹¹))-C(O), Ava, Ado, or Aec;

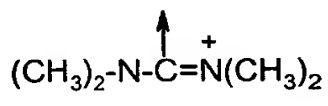
X¹ for each occurrence is independently selected from the group consisting of (C₁-C₆)alkyl, OH and halo;

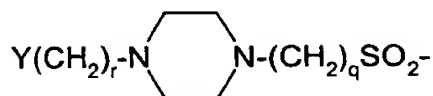
R¹ is OH, NH₂, (C₁-C₃₀)alkoxy, or NH-X²-CH₂-Z⁰, wherein X² is a (C₁-C₁₂)hydrocarbon moiety, and Z⁰ is H, OH, CO₂H or CONH₂;



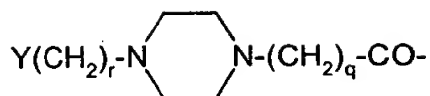
or -C(O)-NHR¹², wherein X⁴ is, independently for each occurrence, -C(O)-, -NH-C(O)- or -CH₂-, and wherein f is, independently for each occurrence, an integer from 1 to 29 inclusive;

each of R² and R³ is independently selected from the group consisting of H, (C₁-C₃₀)alkyl, (C₂-C₃₀)alkenyl, phenyl(C₁-C₃₀)alkyl, naphthyl(C₁-C₃₀)alkyl, hydroxy(C₁-C₃₀)alkyl, hydroxy(C₂-C₃₀)alkenyl, hydroxyphenyl(C₁-C₃₀)alkyl, and

hydroxynaphthyl(C₁-C₃₀)alkyl; or one of R² and R³ is , (C₁-C₃₀)acyl, (C₁-C₃₀)alkylsulfonyl, C(O)X⁵,



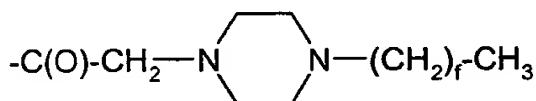
or



; wherein Y is H, OH or NH₂; r is 0 to 4; q is 0 to 4;

and X⁵ is (C₁-C₃₀)alkyl, (C₂-C₃₀)alkenyl, phenyl(C₁-C₃₀)alkyl, naphthyl(C₁-C₃₀)alkyl, hydroxy(C₁-C₃₀)alkyl, hydroxy(C₂-C₃₀)alkenyl, hydroxyphenyl(C₁-C₃₀)alkyl or hydroxynaphthyl(C₁-C₃₀)alkyl;

- 5 e is, independently for each occurrence, an integer from 1 to 4 inclusive;
 m is, independently for each occurrence, an integer from 5 to 24 inclusive;
 n is, independently for each occurrence, an integer from 1 to 5, inclusive;
 each of R¹⁰ and R¹¹ is, independently for each occurrence, H, (C₁-C₃₀)alkyl, (C₁-C₃₀)acyl, (C₁-C₃₀)alkylsulfonyl, -C((NH)(NH₂)) or



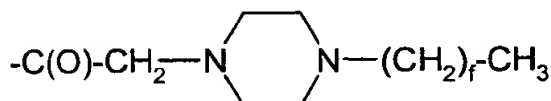
- 10 ; and

R¹² and R¹³ each is, independently for each occurrence, (C₁-C₃₀)alkyl;

provided that:

when A⁷ is Ura, Paa or Pta, then R² and R³ are deleted;

when R¹⁰ is (C₁-C₃₀)acyl, (C₁-C₃₀)alkylsulfonyl, -C((NH)(NH₂)) or

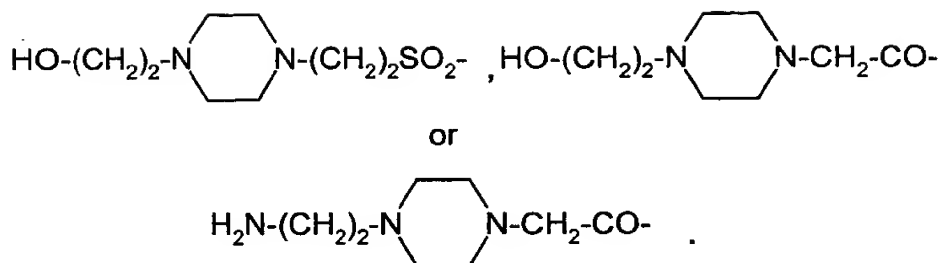


- 15 , then R¹¹ is H or (C₁-C₃₀)alkyl;

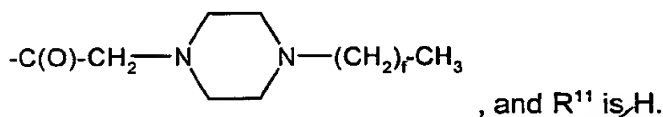
- (i) at least one amino acid of a compound of formula (I) is not the same as the native sequence of hGLP-1(7-36, -37 or -38)NH₂ or hGLP-1(7-36, -37 or -38)OH;
 (ii) a compound of formula (I) is not an analogue of hGLP-1(7-36, -37 or -38)NH₂ or hGLP-1(7-36, -37 or -38)OH wherein a single position has been substituted by Ala;
 20 (iii) a compound of formula (I) is not (Arg^{26,34}, Lys³⁸)hGLP-1(7-38)-E, (Lys²⁶(N_ε-alkanoyl))hGLP-1(7-36, -37 or -38)-E, (Lys³⁴(N_ε-alkanoyl))hGLP-1(7-36, -37 or -38)-E, (Lys^{26,34}-bis(N_ε-alkanoyl))hGLP-1(7-36, -37 or -38)-E, (Arg²⁶, Lys³⁴(N_ε-alkanoyl))hGLP-1(8-36, -37 or -38)-E, (Arg^{26,34}, Lys³⁶(N_ε-alkanoyl))hGLP-1(7-36, -37 or -38)-E or (Arg^{26,34}, Lys³⁸(N_ε-alkanoyl))hGLP-1(7-38)-E, wherein E is -OH or -NH₂;
 25 (iv) a compound of formula (I) is not Z¹-hGLP-1(7-36, -37 or -38)-OH, Z¹-hGLP-1(7-36, -37 or -38)-NH₂, wherein Z¹ is selected from the group consisting of:
 (e) (Arg²⁵), (Arg³⁴), (Arg^{26,34}), (Lys³⁶), (Arg²⁶, Lys³⁶), (Arg³⁴, Lys³⁶), (D-Lys³⁶), (Arg³⁵), (D-Arg³⁶), (Arg^{26,34}, Lys³⁶) or (Arg^{26,36}, Lys³⁴);

- (f) (Asp²¹);
- (g) at least one of (Aib⁸), (D-Ala⁸) and (Asp⁹); and
- (h) (Tyr⁷), (N-acyl-His⁷), (N-alkyl-His⁷), (N-acyl-D-His⁷) or (N-alkyl-D-His⁷);
- (v) a compound of formula (I) is not a combination of any two of the substitutions listed in groups (a) to (d); and
- (vi) a compound of formula (I) is not (N-Me-Ala⁸)hGLP-1(8-36 or -37), (Glu¹⁵)hGLP-1(7-36 or -37), (Asp²¹)hGLP-1(7-36 or -37) or (Phe³¹)hGLP-1(7-36 or -37) or a pharmaceutically acceptable salt thereof.
2. A compound according to claim 1, wherein A¹¹ is Thr; A¹³ is Thr; A¹⁵ is Asp; A¹⁷ is Ser; A¹⁸ is Ser; A²¹ is Glu; A²³ is Gln or Glu; A²⁷ is Glu; and A³¹ is Trp; or a pharmaceutically acceptable salt thereof.
3. A compound according to claim 2, wherein A⁹ is Glu, N-Me-Glu or N-Me-Asp; A¹² is Phe, Acc or Aib; A¹⁶ is Val, Acc or Aib; A¹⁹ is Tyr; A²⁰ is Leu, Acc or Cha; A²⁴ is Ala, Aib or Acc; A²⁵ is Ala, Aib, Acc, Lys, Arg, hArg, Orn, HN-CH((CH₂)_n-N(R¹⁰R¹¹))-C(O) or HN-CH((CH₂)_e-X³)-C(O); A²⁸ is Phe; A²⁹ is Ile or Acc; A³⁰ is Ala or Aib; A³² is Leu, Acc or Cha; and A³³ is Val or Acc; or a pharmaceutically acceptable salt thereof.
4. A compound according to claim 3, wherein A⁸ is Ala, D-Ala, Aib, A6c, A5c, N-Me-Ala, N-Me-D-Ala or N-Me-Gly; A¹⁰ is Gly; A¹² is Phe, A6c or A5c; A¹⁶ is Val, A6c or A5c; A²⁰ is Leu, A6c, A5c or Cha; A²² is Gly, β-Ala or Aib; A²⁴ is Ala or Aib; A²⁹ is Ile, A6c or A5c; A³² is Leu, A6c, A5c or Cha; A³³ is Val, A6c or A5c; A³⁵ is Aib, β-Ala, Ado, A6c, A5c or Gly; and A³⁷ is Gly, Aib, β-Ala, Ado, D-Ala or deleted; or a pharmaceutically acceptable salt thereof.
5. A compound according to claim 4 or a pharmaceutically acceptable salt thereof, wherein X⁴ for each occurrence is -C(O)-; e for each occurrence is independently 1 or 2; and R¹ is OH or NH₂.
6. A compound according to claim 5 or a pharmaceutically acceptable salt thereof, wherein R² is H and R³ is (C₁-C₃₀)alkyl, (C₂-C₃₀)alkenyl, (C₁-C₃₀)acyl, (C₁-C₃₀)alkylsulfonyl,

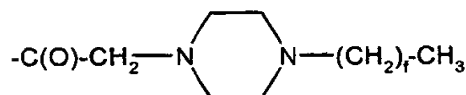
-47-



7. A compound according to claim 5 or a pharmaceutically acceptable salt thereof, wherein R¹⁰ is (C₁-C₃₀)acyl, (C₁-C₃₀)alkylsulfonyl or



8. A compound according to claim 7 or a pharmaceutically acceptable salt thereof, wherein R¹⁰ is (C₄-C₂₀)acyl, (C₄-C₂₀)alkylsulfonyl or



9. A compound according to claim 1 wherein said compound is (Aib^{8,35})hGLP-1(7-36)NH₂,

10 ((N_α-HEPES-His)⁷, Aib^{8,35})hGLP-1(7-36)NH₂,

((N_α-HEPA-His)⁷, Aib^{8,35})hGLP-1(7-36)NH₂,

(Aib⁸, β-Ala³⁵)hGLP-1(7-36)NH₂,

(Aib^{8,35}, Arg^{26,34}, Lys³⁶(N_ε-tetradecanoyl))hGLP-1(7-36)NH₂,

(Aib^{8,35}, Arg²⁶, Lys³⁴(N_ε-tetradecanoyl))hGLP-1(7-36)NH₂,

15 (Aib^{8,35,37}, Arg^{26,34}, Lys³⁸(N_ε-tetradecanoyl))hGLP-1(7-38)NH₂,

(Aib^{8,35}, Arg^{26,34}, Lys³⁶(N_ε-decanoyl))hGLP-1(7-36)NH₂,

(Aib^{8,35}, Arg^{26,34}, Lys³⁶(N_ε-dodecanesulfonyl))hGLP-1(7-36)NH₂,

(Aib^{8,35}, Arg^{26,34}, Lys³⁶(N_ε-(2-(4-tetradecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂,

(Aib^{8,35}, Arg^{26,34}, Asp³⁶(1-(4-tetradecyl-piperazine)))hGLP-1(7-36)NH₂,

20 (Aib^{8,35}, Arg^{26,34}, Asp³⁶(1-tetradecylamino))hGLP-1(7-36)NH₂,

(Aib^{8,35}, Arg^{26,34}, Lys³⁶(N_ε-tetradecanoyl), β-Ala³⁷)hGLP-1(7-37)-OH or

(Aib^{8,35}, Arg^{26,34}, Lys³⁶(N_ε-tetradecanoyl))hGLP-1(7-36)-OH, or a pharmaceutically acceptable salt thereof.

10. A compound according to claim 9 wherein said compound is

25 (Aib^{8,35})hGLP-1(7-36)NH₂,

(Aib⁸, β-Ala³⁵)hGLP-1(7-36)NH₂,

(Aib^{8,35}, Arg²⁶, Lys³⁴(N_ε-tetradecanoyl))hGLP-1(7-36)NH₂,

(Aib^{8,35,37}, Arg^{26,34}, Lys³⁸(N_ε-tetradecanoyl))hGLP-1(7-38)NH₂,

(Aib^{8,35}, Arg^{26,34}, Lys³⁶(N_ε-decanoyl))hGLP-1(7-36)NH₂, or

- 5 (Aib^{8,35}, Arg^{26,34}, Lys³⁶(N_ε-tetradecanoyl), β-Ala³⁷)hGLP-1(7-37)-OH, or a pharmaceutically acceptable salt thereof.

11. A pharmaceutical composition comprising an effective amount of a compound according to claim 1 or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable carrier or diluent.

- 10 12. A method of eliciting an agonist effect from a GLP-1 receptor in a subject in need thereof which comprises administering to said subject an effective amount of a compound according to claim 1 or a pharmaceutically acceptable salt thereof.

13. A method of treating a disease selected from the group consisting of
15 Type I diabetes, Type II diabetes, obesity, glucagonomas, secretory disorders of the airway, metabolic disorder, arthritis, osteoporosis, central nervous system disease, restenosis and neurodegenerative disease, in a subject in need thereof which comprises administering to said subject an effective amount of a compound according to claim 1 or a pharmaceutically acceptable salt thereof.

- 20 14. A method according to claim 13 wherein said disease is Type I diabetes or Type II diabetes.

15. A compound according to claim 1 wherein said compound is

(Aib³⁵)hGLP-1(7-36)NH₂;

(β-Ala³⁵)hGLP-1(7-36)NH₂;

- 25 ((N^α-Me-His)⁷, Aib^{8,35})hGLP-1(7-36)NH₂;

((N^α-Me-His)⁷, Aib⁸, β-Ala³⁵)hGLP-1(7-36)NH₂;

((N^α-Me-His)⁷, Aib^{8,35}, Arg^{26,34})hGLP-1(7-36)NH₂;

((N^α-Me-His)⁷, Aib⁸, Arg^{26,34}, β-Ala³⁵)hGLP-1(7-36)NH₂;

(Aib⁸, A6c³⁵)hGLP-1(7-36)NH₂;

- 30 (Aib⁸, A5c³⁵)hGLP-1(7-36)NH₂;

(Aib⁸, D-Ala³⁵)hGLP-1(7-36)NH₂;

(Aib^{8,35}, A6c³²)hGLP-1(7-36)NH₂;

(Aib^{8,35}, A5c³²)hGLP-1(7-36)NH₂;

(Aib^{8,35}, Glu²³)hGLP-1(7-36)NH₂;

- (Aib^{8,24,35})hGLP-1(7-36)NH₂;
 (Aib^{8,30,35})hGLP-1(7-36)NH₂;
 (Aib^{8,25,35})hGLP-1(7-36)NH₂;
 (Aib^{8,35}, A6c^{16,20})hGLP-1(7-36)NH₂;
 5 (Aib^{8,35}, A6c^{16,29,32})hGLP-1(7-36)NH₂;
 (Aib^{8,35}, A6c^{20,32})hGLP-1(7-36)NH₂;
 (Aib^{8,35}, A6c²⁰)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys²⁵)hGLP-1(7-36)NH₂;
 (Aib^{8,24,35}, A6c²⁰)hGLP-1(7-36)NH₂;
 10 (Aib^{8,35}, A6c^{29,32})hGLP-1(7-36)NH₂;
 (Aib^{8,24,35}, A6c^{29,32})hGLP-1(7-36)NH₂;
 (Aib^{8,35}, A6c¹²)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Cha²⁰)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, A6c³³)hGLP-1(7-36)NH₂;
 15 (Aib^{8,35}, A6c^{20,32})hGLP-1(7-36)NH₂;
 (Aib⁸, A6c^{16,20}, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, β-Ala²²)hGLP-1(7-36)NH₂;
 (Aib^{8,22,35})hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, A6c³²)hGLP-1(7-36)NH₂;
 20 (Aib^{8,24,35}, Glu²³, A6c³²)hGLP-1(7-36)NH₂;
 (Aib^{8,24,25,35}, Glu²³, A6c³²)hGLP-1(7-36)NH₂;
 (Aib^{8,24,25,35}, A6c^{16,20,32}, Glu²³)hGLP-1(7-36)NH₂;
 (Aib⁸, A6c³², β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, A5c³², β-Ala³⁵)hGLP-1(7-36)NH₂;
 25 (Aib⁸, Glu²³, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib^{8,24}, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib^{8,30}, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib^{8,25}, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, A6c^{16,20}, β-Ala³⁵)hGLP-1(7-36)NH₂;
 30 (Aib⁸, A6c^{16,29,32}, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, A6c^{20,32}, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, A6c²⁰, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Lys²⁵, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib^{8,24}, A6c²⁰, β-Ala³⁵)hGLP-1(7-36)NH₂;

- (Aib⁸, A6c^{29,32}, β -Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib^{8,24}, A6c^{29,32}, β -Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, A6c¹², β -Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Cha²⁰, β -Ala³⁵)hGLP-1(7-36)NH₂;
 5 (Aib⁸, A6c³³, β -Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, A6c^{20,32}, β -Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, β -Ala^{22,35})hGLP-1(7-36)NH₂;
 (Aib^{8,22}, β -Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Glu²³, A6c³², β -Ala³⁵)hGLP-1(7-36)NH₂;
 10 (Aib^{8,24}, Glu²³, A6c³², β -Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib^{8,24}, Glu²³, A6c³², Lys³⁴(N^ε-octanoyl), β -Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib^{8,24,25}, Glu²³, A6c³², β -Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib^{8,24,25}, A6c^{16,20,32}, Glu²³, β -Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, D-Arg³⁶)hGLP-1(7-36)NH₂;
 15 (Aib^{8,35}, D-Lys³⁶)hGLP-1(7-36)NH₂;
 (Aib⁸, β -Ala³⁵, D-Arg³⁶)hGLP-1(7-36)NH₂;
 (Aib⁸, β -Ala³⁵, D-Lys³⁶)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34})hGLP-1(7-36)NH₂;
 (Aib⁸, Arg^{26,34}, β -Ala³⁵)hGLP-1(7-36)NH₂;
 20 (Aib^{8,35}, Arg^{25,26,34})hGLP-1(7-36)NH₂;
 (Aib⁸, Arg^{25,26,34}, β -Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Arg^{26,34}, β -Ala³⁵, Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)OH;
 (Aib^{8,35}, Arg^{26,34}, Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-37)OH;
 (Aib^{8,35,37}, Arg^{26,34}, Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-37)OH;
 25 (Aib^{8,35}, Arg^{26,34}, Lys³⁶(N^ε-tetradecanoyl), D-Ala³⁷)hGLP-1(7-37)OH;
 (Aib^{8,35,37}, Arg^{26,34}, Lys³⁸(N^ε-tetradecanoyl))hGLP-1(7-38)OH;
 (Aib^{8,35}, Arg^{26,34}, β -Ala³⁷, Lys³⁸(N^ε-tetradecanoyl))hGLP-1(7-38)OH;
 (Aib^{8,35}, Arg^{26,34}, Lys³⁸(N^ε-tetradecanoyl))hGLP-1(7-38)OH;
 (Aib⁸, Arg^{26,34}, Lys³⁶(N^ε-tetradecanoyl), β -Ala³⁷)hGLP-1(7-37)OH;
 30 (Aib^{8,37}, Arg^{26,34}, Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-37)OH;
 (Aib^{8,35}, Arg^{26,34}, Ado³⁷)hGLP-1(7-37)OH;
 (Aib^{8,35}, Arg^{26,34}, Ado³⁷)hGLP-1(7-37)NH₂;
 (Aib⁸, Arg^{26,34}, Lys³⁶(N^ε-tetradecanoyl), D-Ala³⁷)hGLP-1(7-37)OH;

- (Aib^{8,37}, Arg^{26,34}, Lys³⁸(N^ε-tetradecanoyl))hGLP-1(7-38)OH;
 (Aib⁸, Arg^{26,34}, β-Ala³⁷, Lys³⁸(N^ε-tetradecanoyl))hGLP-1(7-38)OH;
 (Aib^{8,35}, Lys²⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys²⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 5 (Aib^{8,35}, Lys²⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib⁸, Lys²⁶(N^ε-octanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Lys²⁶(N^ε-tetradecanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Lys²⁶(N^ε-hexadecanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys²⁶(N^ε-octanoyl), Arg³⁴)hGLP-1(7-36)NH₂;
 10 (Aib^{8,35}, Lys²⁶(N^ε-tetradecanoyl), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys²⁶(N^ε-hexadecanoyl), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys²⁶(N^ε-decanoyl), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys²⁵, Lys²⁶(N^ε-octanoyl), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys²⁵, Lys²⁶(N^ε-tetradecanoyl), Arg³⁴)hGLP-1(7-36)NH₂;
 15 (Aib^{8,35}, Lys²⁵, Lys²⁶(N^ε-hexadecanoyl), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,34}, Lys²⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,34}, Lys²⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,34}, Lys²⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,34}, Lys²⁶(N^ε-decanoyl))hGLP-1(7-36)NH₂;
 20 (Aib⁸, Lys²⁶(N^ε-octanoyl), Arg³⁴, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Lys²⁶(N^ε-tetradecanoyl), Arg³⁴, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Lys²⁶(N^ε-hexadecanoyl), Arg³⁴, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Lys²⁶(N^ε-decanoyl), Arg³⁴, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys³⁴(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 25 (Aib^{8,35}, Lys³⁴(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys³⁴(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, Lys³⁴(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, Lys³⁴(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, Lys³⁴(N^ε-decanoyl))hGLP-1(7-36)NH₂;
 30 (Aib^{8,35}, Arg^{25,26}, Lys³⁴(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,26}, Lys³⁴(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,26}, Lys³⁴(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;

- (Aib^{8,35}, Arg^{25,26}, Lys³⁴(N^ε-decanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys²⁵, Arg²⁶, Lys³⁴(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys²⁵, Arg²⁶, Lys³⁴(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys²⁵, Arg²⁶, Lys³⁴(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 5 (Aib^{8,35}, Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 10 (Aib^{8,35}, Arg²⁶, Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Lys³⁸(N^ε-octanoyl))hGLP-1(7-38)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Lys³⁸(N^ε-decanoyl))hGLP-1(7-38)NH₂;
 15 (Aib^{8,35}, Arg^{26,34}, Lys³⁸(N^ε-tetradecanoyl))hGLP-1(7-38)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Lys³⁸(N^ε-hexadecanoyl))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{25,26,34}, Lys³⁸(N^ε-octanoyl))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{25,26,34}, Lys³⁸(N^ε-decanoyl))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{25,26,34}, Lys³⁸(N^ε-tetradecanoyl))hGLP-1(7-38)NH₂;
 20 (Aib^{8,35,37}, Arg^{25,26,34}, Lys³⁸(N^ε-hexadecanoyl))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{26,34}, Lys³⁸(N^ε-octanoyl))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{26,34}, Lys³⁸(N^ε-decanoyl))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{26,34}, Lys³⁸(N^ε-hexadecanoyl))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{25,26,34}, Lys³⁸(N^ε-octanoyl))hGLP-1(7-38)NH₂;
 25 (Aib^{8,35,37}, Arg^{25,26,34}, Lys³⁸(N^ε-decanoyl))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{25,26,34}, Lys³⁸(N^ε-tetradecanoyl))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{25,26,34}, Lys³⁸(N^ε-hexadecanoyl))hGLP-1(7-38)NH₂;
 (Aib^{8,35}, Lys²⁵, Arg^{26,34}, Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys²⁵, Arg^{26,34}, Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 30 (Aib^{8,35}, Lys²⁵, Arg^{26,34}, Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,26,34}, Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,26,34}, Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;

- (Aib^{8,35}, Arg^{25,26,34}, Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,26,34}, Lys³⁶(N^ε-decanoyl))hGLP-1(7-36)NH₂;
 (Aib⁸, Lys³⁴(N^ε-octanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Lys³⁴(N^ε-tetradecanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 5 (Aib⁸, Lys³⁴(N^ε-hexadecanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, A6c³², Lys³⁴(N^ε-octanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Glu²³, Lys³⁴(N^ε-octanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Glu²³, A6c³², Lys³⁴(N^ε-octanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Arg²⁶, Lys³⁴(N^ε-octanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 10 (Aib⁸, Arg²⁶, Lys³⁴(N^ε-tetradecanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Arg²⁶, Lys³⁴(N^ε-hexadecanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Arg²⁶, Lys³⁴(N^ε-decanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Arg^{25,26}, Lys³⁴(N^ε-octanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Arg^{25,26}, Lys³⁴(N^ε-tetradecanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 15 (Aib⁸, Arg^{25,26}, Lys³⁴(N^ε-hexadecanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Arg^{25,26}, Lys³⁴(N^ε-decanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Lys²⁵, Arg²⁶, Lys³⁴(N^ε-octanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Lys²⁵, Arg²⁶, Lys³⁴(N^ε-tetradecanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Lys²⁵, Arg²⁶, Lys³⁴(N^ε-hexadecanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 20 (Aib⁸, β-Ala³⁵, Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib⁸, β-Ala³⁵, Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib⁸, β-Ala³⁵, Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib⁸, Arg²⁶, β-Ala³⁵, Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib⁸, Arg²⁶, β-Ala³⁵, Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 25 (Aib⁸, Arg²⁶, β-Ala³⁵, Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib⁸, Arg^{26,34}, β-Ala³⁵, Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib⁸, Arg^{26,34}, β-Ala³⁵, Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib⁸, Arg^{26,34}, β-Ala³⁵, Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib⁸, Arg^{26,34}, β-Ala³⁵, Lys³⁶(N^ε-decanoyl))hGLP-1(7-36)NH₂;
 30 (Aib⁸, Lys²⁵, Arg^{26,34}, β-Ala³⁵, Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib⁸, Lys²⁵, Arg^{26,34}, Lys³⁶(N^ε-tetradecanoyl), β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Lys²⁵, Arg^{26,34}, β-Ala³⁵, Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;

- (Aib⁸, Arg^{25,26,34}, β-Ala³⁵, Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib⁸, Arg^{25,26,34}, β-Ala³⁵, Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib⁸, Arg^{25,26,34}, β-Ala³⁵, Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib⁸, Arg^{25,26,34}, β-Ala³⁵, Lys³⁶(N^ε-decanoyl))hGLP-1(7-36)NH₂;
 5 (Aib^{8,35}, Lys²⁶(N^ε-octanoyl), A6c³², Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys²⁶(N^ε-tetradecanoyl), A6c³², Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys²⁶(N^ε-hexadecanoyl), A6c³², Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, A6c³², Lys³⁴(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, A6c³², Lys³⁴(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 10 (Aib^{8,35}, A6c³², Lys³⁴(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, A6c³², Lys³⁴(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, A6c³², Lys³⁴(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, A6c³², Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, A6c³², Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 15 (Aib^{8,35}, A6c³², Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, A6c³², Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, A6c³², Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, A6c³², Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, A6c³², Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 20 (Aib^{8,35}, Arg^{26,34}, A6c³², Lys³⁶(N^ε-decanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, A6c³², Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, A6c³², Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,24,35}, Lys²⁶(N^ε-octanoyl), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,24,35}, Lys²⁶(N^ε-tetradecanoyl), Arg³⁴)hGLP-1(7-36)NH₂;
 25 (Aib^{8,24,35}, Lys²⁶(N^ε-hexadecanoyl), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,24,35}, Arg²⁶, Lys³⁴(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,24,35}, Arg²⁶, Lys³⁴(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,24,35}, Arg²⁶, Lys³⁴(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,24,35}, Arg^{26,34}, Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 30 (Aib^{8,24,35}, Arg^{26,34}, Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,24,35}, Arg^{26,34}, Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,24,35}, Glu²³, A6c³², Lys³⁴(N^ε-octanoyl))hGLP-1(7-36)NH₂;

- (Aib^{8,35}, Glu²³, Lys²⁶(N^ε-octanoyl), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, Lys²⁶(N^ε-tetradecanoyl), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, Lys²⁶(N^ε-hexadecanoyl), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, Lys³⁴(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 5 (Aib^{8,35}, Glu²³, A6c³², Lys³⁴(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, Arg²⁶, Lys³⁴(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, Arg²⁶, Lys³⁴(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, Arg²⁶, Lys³⁴(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 10 (Aib^{8,35}, Glu²³, Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, Arg^{26,34}, Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, Arg^{26,34}, Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, Arg^{26,34}, Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 15 (Aib^{8,30,35}, Lys²⁶(N^ε-octanoyl), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,30,35}, Lys²⁶(N^ε-tetradecanoyl), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,30,35}, Lys²⁶(N^ε-hexadecanoyl), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,30,35}, Arg²⁶, Lys³⁴(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,30,35}, Arg²⁶, Lys³⁴(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 20 (Aib^{8,30,35}, Arg²⁶, Lys³⁴(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,30,35}, Arg^{26,34}, Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,30,35}, Arg^{26,34}, Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,30,35}, Arg^{26,34}, Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, A6c³², Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 25 (Aib^{8,35}, Glu²³, A6c³², Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, A6c³², Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, Arg^{26,34}, A6c³², Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, Arg^{26,34}, A6c³², Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, Arg^{26,34}, A6c³², Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 30 (Aib^{8,24,35}, Glu²³, Arg^{26,34}, A6c³², Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,24,35}, Glu²³, Arg^{26,34}, A6c³², Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,24,35}, Glu²³, Arg^{26,34}, A6c³², Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;

- (Aib^{8,24,30,35}, Glu²³, Arg^{26,34}, A6c³², Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,24,30,35}, Glu²³, Arg^{26,34}, A6c³², Lys³⁶(N^ε-tetradecanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,24,30,35}, Glu²³, Arg^{26,34}, A6c³², Lys³⁶(N^ε-hexadecanoyl))hGLP-1(7-36)NH₂;
 ((N^α-HEPES-His)⁷, Aib³⁵)hGLP-1(7-36)NH₂;
 5 ((N^α-HEPES-His)⁷, β-Ala³⁵)hGLP-1(7-36)NH₂;
 ((N^α-HEPES-His)⁷, Aib⁸, β-Ala³⁵)hGLP-1(7-36)NH₂;
 ((N^α-HEPA-His)⁷, Aib³⁵)hGLP-1(7-36)NH₂;
 ((N^α-HEPA-His)⁷, β-Ala³⁵)hGLP-1(7-36)NH₂;
 ((N^α-HEPA-His)⁷, Aib⁸, β-Ala³⁵)hGLP-1(7-36)NH₂;
 10 ((N^α-tetradecanoyl-His)⁷, Aib³⁵)hGLP-1(7-36)NH₂;
 ((N^α-tetradecanoyl-His)⁷, β-Ala³⁵)hGLP-1(7-36)NH₂;
 ((N^α-tetradecanoyl-His)⁷, Aib^{8,35})hGLP-1(7-36)NH₂;
 ((N^α-tetradecanoyl-His)⁷, Aib⁸, β-Ala³⁵)hGLP-1(7-36)NH₂;
 ((N^α-tetradecanoyl-His)⁷, Arg^{26,34}, Aib³⁵)hGLP-1(7-36)NH₂;
 15 ((N^α-tetradecanoyl-His)⁷, Arg^{26,34}, β-Ala³⁵)hGLP-1(7-36)NH₂;
 ((N^α-tetradecanoyl-His)⁷, Aib^{8,35}, Arg^{26,34})hGLP-1(7-36)NH₂;
 ((N^α-tetradecanoyl-His)⁷, Aib⁸, Arg^{26,34}, β-Ala³⁵)hGLP-1(7-36)NH₂;
 ((N^α-tetradecanoyl-His)⁷, Arg^{25,26,34}, β-Ala³⁵)hGLP-1(7-36)NH₂;
 ((N^α-tetradecanoyl-His)⁷, Aib^{8,35}, Arg^{25,26,34})hGLP-1(7-36)NH₂;
 20 ((N^α-tetradecanoyl-His)⁷, Aib⁸, Arg^{25,26,34}, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys²⁶(N^ε-octanesulfonyl), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys²⁶(N^ε-dodecanesulfonyl), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys²⁶(N^ε-hexadecanesulfonyl), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, Lys³⁴(N^ε-octanesulfonyl))hGLP-1(7-36)NH₂;
 25 (Aib^{8,35}, Arg²⁶, Lys³⁴(N^ε-dodecanesulfonyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, Lys³⁴(N^ε-hexadecanesulfonyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Lys³⁶(N^ε-octanesulfonyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Lys³⁶(N^ε-hexadecanesulfonyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Asp²⁶(1-(4-decylpiperazine)), Arg³⁴)hGLP-1(7-36)NH₂;
 30 (Aib^{8,35}, Asp²⁶(1-(4-dodecylpiperazine)), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Asp²⁶(1-(4-tetradecylpiperazine)), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Asp²⁶(1-(4-hexadecylpiperazine)), Arg³⁴)hGLP-1(7-36)NH₂;

- (Aib^{8,35}, Arg²⁶, Asp³⁴(1-(4-decylpiperazine)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, Asp³⁴(1-(4-dodecylpiperazine)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, Asp³⁴(1-(4-tetradecylpiperazine)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, Asp³⁴(1-(4-hexadecylpiperazine)))hGLP-1(7-36)NH₂;
 5 (Aib^{8,35}, Arg^{26,34}, Asp³⁶(1-(4-decylpiperazine)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Asp³⁶(1-(4-dodecylpiperazine)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Asp³⁶(1-(4-hexadecylpiperazine)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Asp³⁸(1-(4-decylpiperazine)))hGLP-1(7-38)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Asp³⁸(1-(4-dodecylpiperazine)))hGLP-1(7-38)NH₂;
 10 (Aib^{8,35}, Arg^{26,34}, Asp³⁸(1-(4-tetradecylpiperazine)))hGLP-1(7-38)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Asp³⁸(1-(4-hexadecylpiperazine)))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{26,34}, Asp³⁸(1-(4-decylpiperazine)))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{26,34}, Asp³⁸(1-(4-dodecylpiperazine)))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{26,34}, Asp³⁸(1-(4-tetradecylpiperazine)))hGLP-1(7-38)NH₂;
 15 (Aib^{8,35,37}, Arg^{26,34}, Asp³⁸(1-(4-hexadecylpiperazine)))hGLP-1(7-38)NH₂;
 (Aib^{8,35}, Arg^{25,34}, Asp²⁶(1-(4-decylpiperazine)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,34}, Asp²⁶(1-(4-dodecylpiperazine)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,34}, Asp²⁶(1-(4-tetradecylpiperazine)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,34}, Asp²⁶(1-(4-hexadecylpiperazine)))hGLP-1(7-36)NH₂;
 20 (Aib^{8,35}, Arg^{25,26}, Asp³⁴(1-(4-decylpiperazine)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,26}, Asp³⁴(1-(4-dodecylpiperazine)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,26}, Asp³⁴(1-(4-tetradecylpiperazine)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,26}, Asp³⁴(1-(4-hexadecylpiperazine)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,26,34}, Asp³⁶(1-(4-decylpiperazine)))hGLP-1(7-36)NH₂;
 25 (Aib^{8,35}, Arg^{25,26,34}, Asp³⁶(1-(4-dodecylpiperazine)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,26,34}, Asp³⁶(1-(4-tetradecylpiperazine)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,26,34}, Asp³⁶(1-(4-hexadecylpiperazine)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,26,34}, Asp³⁸(1-(4-decylpiperazine)))hGLP-1(7-38)NH₂;
 (Aib^{8,35}, Arg^{25,26,34}, Asp³⁸(1-(4-dodecylpiperazine)))hGLP-1(7-38)NH₂;
 30 (Aib^{8,35}, Arg^{25,26,34}, Asp³⁸(1-(4-tetradecylpiperazine)))hGLP-1(7-38)NH₂;
 (Aib^{8,35}, Arg^{25,26,34}, Asp³⁸(1-(4-hexadecylpiperazine)))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{25,26,34}, Asp³⁸(1-(4-decylpiperazine)))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{25,26,34}, Asp³⁸(1-(4-dodecylpiperazine)))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{25,26,34}, Asp³⁸(1-(4-tetradecylpiperazine)))hGLP-1(7-38)NH₂;

- (Aib^{8,35,37}, Arg^{25,26,34}, Asp³⁸(1-(4-hexadecylpiperazine)))hGLP-1(7-38)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Glu³⁶(1-dodecylamino))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²⁶(1-dodecylamino), Arg³⁴)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, Glu³⁴(1-dodecylamino))hGLP-1(7-36)NH₂;
 5 (Aib^{8,35,37}, Arg^{26,34}, Glu³⁸(1-dodecylamino))hGLP-1(7-38)NH₂;
 (Aib^{8,35}, Arg³⁴, Lys²⁶(N^ε-(2-(4-decyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg³⁴, Lys²⁶(N^ε-(2-(4-dodecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg³⁴, Lys²⁶(N^ε-(2-(4-tetradecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg³⁴, Lys²⁶(N^ε-(2-(4-hexadecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 10 (Aib^{8,35}, Arg²⁶, Lys³⁴(N^ε-(2-(4-decyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, Lys³⁴(N^ε-(2-(4-dodecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, Lys³⁴(N^ε-(2-(4-tetradecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg²⁶, Lys³⁴(N^ε-(2-(4-hexadecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Lys³⁶(N^ε-(2-(4-decyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 15 (Aib^{8,35}, Arg^{26,34}, Lys³⁶(N^ε-(2-(4-dodecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Lys³⁶(N^ε-(2-(4-hexadecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Lys³⁸(N^ε-(2-(4-decyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Lys³⁸(N^ε-(2-(4-dodecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Lys³⁸(N^ε-(2-(4-tetradecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH₂;
 20 (Aib^{8,35}, Arg^{26,34}, Lys³⁸(N^ε-(2-(4-hexadecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{26,34}, Lys³⁸(N^ε-(2-(4-decyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{26,34}, Lys³⁸(N^ε-(2-(4-dodecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{26,34}, Lys³⁸(N^ε-(2-(4-tetradecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH₂;
 (Aib^{8,35,37}, Arg^{26,34}, Lys³⁸(N^ε-(2-(4-hexadecyl-1-piperazine)-acetyl)))hGLP-1(7-38)NH₂;
 25 (Aib^{8,35}, Arg^{25,34}, Lys²⁶(N^ε-(2-(4-decyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,34}, Lys²⁶(N^ε-(2-(4-dodecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,34}, Lys²⁶(N^ε-(2-(4-tetradecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,34}, Lys²⁶(N^ε-(2-(4-hexadecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,26}, Lys³⁴(N^ε-(2-(4-decyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 30 (Aib^{8,35}, Arg^{25,26}, Lys³⁴(N^ε-(2-(4-dodecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,26}, Lys³⁴(N^ε-(2-(4-tetradecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{25,26}, Lys³⁴(N^ε-(2-(4-hexadecyl-1-piperazine)-acetyl)))hGLP-1(7-36)NH₂;

- (Aib^{8,27}, β -Ala^{35,37}, Arg^{38,39})hGLP-1(7-39)NH₂;
 (Aib⁸, Lys^{18,27}, β -Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Lys²⁷, β -Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, β -Ala³⁵, Arg³⁸)hGLP-1(7-38)NH₂;
 5 (Aib⁸, Arg^{26,34}, β -Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, D-Arg³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, β -Ala³⁵, Arg³⁷)hGLP-1(7-37)NH₂;
 (Aib⁸, Phe³¹, β -Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Phe³¹)hGLP-1(7-36)NH₂;
 10 (Aib^{8,35}, Nal³¹)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Nal^{28,31})hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Nal³¹)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Phe³¹)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Nal^{19,31})hGLP-1(7-36)NH₂;
 15 (Aib^{8,35}, Nal^{12,31})hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys³⁶(N^ε-decanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg³⁴, Lys²⁶(N^ε-decanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Lys³⁶(N^ε-dodecanoyl))hGLP-1(7-36)NH₂;
 (Aib⁸, β -Ala³⁵, Ser³⁷(O-decanoyl))hGLP-1(7-37)-NH₂;
 20 (Aib^{8,27}, β -Ala^{35,37}, Arg³⁸, Lys³⁹(N^ε-octanoyl))hGLP-1(7-39)NH₂;
 (Aib⁸, Arg^{26,34}, β -Ala³⁵, Lys³⁷(N^ε-octanoyl))hGLP-1(7-37)NH₂;
 (Aib⁸, Arg^{26,34}, β -Ala³⁵, Lys³⁷(N^ε-decanoyl))hGLP-1(7-37)NH₂;
 (Aib⁸, Arg^{26,34}, β -Ala³⁵, Lys³⁷(N^ε-tetradecanoyl))hGLP-1(7-37)NH₂;
 (Aib⁸, Arg^{26,34}, β -Ala³⁵, Lys³⁷(N^ε-dodecanoyl))hGLP-1(7-37)NH₂; or
 25 (Aib⁸, Arg^{26,34}, β -Ala³⁵, Lys³⁷(N^ε-dodecanoyl))hGLP-1(8-37)NH₂;
 or a pharmaceutically acceptable salt thereof. ✓

16. A compound according to claim 15 wherein said compound is

- (Aib^{8,35}, A6c³²)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³)hGLP-1(7-36)NH₂;
 30 (Aib^{8,24,35})hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Glu²³, A6c³²)hGLP-1(7-36)NH₂;
 (Aib⁸, Glu²³, β -Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34})hGLP-1(7-36)NH₂;

- (Aib^{8,35}, Arg^{26,34}, Lys³⁶(N^ε-octanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Lys³⁶(N^ε-decanoyl))hGLP-1(7-36)OH;
 (Aib^{8,35}, Lys²⁵, Arg^{26,34}, Lys³⁶(N^ε-decanoyl))hGLP-1(7-36)OH;
 (Aib⁸, Arg^{26,34}, β-Ala³⁵, Lys³⁶(N^ε-Aec-decanoyl))hGLP-1(7-36)NH₂;
 5 (Aib^{8,35}, Arg^{26,34}, Ava³⁷, Ado³⁸)hGLP-1(7-38)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Asp³⁷, Ava³⁸, Ado³⁹)hGLP-1(7-39)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Aun³⁷)hGLP-1(7-37)NH₂;
 (Aib^{8,17,35})hGLP-1(7-36)NH₂;
 (Aib⁸, Arg^{26,34}, β-Ala³⁵, D-Asp³⁷, Ava³⁸, Aun³⁹)hGLP-1(7-39)NH₂;
 10 (Gly⁸, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Ser⁸, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Glu^{22,23}, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Gly⁸, Aib³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Lys¹⁸, β-Ala³⁵)hGLP-1(7-36)NH₂;
 15 (Aib⁸, Leu²⁷, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Lys³³, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Lys¹⁸, Leu²⁷, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, D-Arg³⁶)hGLP-1(7-36)NH₂;
 (Aib⁸, β-Ala³⁵, D-Arg³⁷)hGLP-1(7-37)NH₂;
 20 (Aib^{8,27}, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib^{8,27}, β-Ala^{35,37}, Arg³⁸)hGLP-1(7-38)NH₂;
 (Aib^{8,27}, β-Ala^{35,37}, Arg^{38,39})hGLP-1(7-39)NH₂;
 (Aib⁸, Lys^{18,27}, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, Lys²⁷, β-Ala³⁵)hGLP-1(7-36)NH₂;
 25 (Aib⁸, β-Ala³⁵, Arg³⁸)hGLP-1(7-38)NH₂;
 (Aib⁸, Arg^{26,34}, β-Ala³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, D-Arg³⁵)hGLP-1(7-36)NH₂;
 (Aib⁸, β-Ala³⁵, Arg³⁷)hGLP-1(7-37)NH₂;
 (Aib⁸, Phe³¹, β-Ala³⁵)hGLP-1(7-36)NH₂;
 30 (Aib^{8,35}, Phe³¹)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Nal³¹)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Nal^{28,31})hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Nal³¹)hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg^{26,34}, Phe³¹)hGLP-1(7-36)NH₂;

- (Aib^{8,35}, Nal^{19,31})hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Nal^{12,31})hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Lys³⁶(N^ε-decanoyl))hGLP-1(7-36)NH₂;
 (Aib^{8,35}, Arg³⁴, Lys²⁶(N^ε-decanoyl))hGLP-1(7-36)NH₂;
 5 (Aib^{8,35}, Arg^{26,34}, Lys³⁶(N^ε-dodecanoyl))hGLP-1(7-36)NH₂;
 (Aib⁸, B-Ala³⁵, Ser³⁷(O-decanoyl))hGLP-1(7-37)-NH₂;
 (Aib^{8,27}, β-Ala^{35,37}, Arg³⁸, Lys³⁹(N^ε-octanoyl))hGLP-1(7-39)NH₂;
 (Aib⁸, Arg^{26,34}, β-Ala³⁵, Lys³⁷(N^ε-octanoyl))hGLP-1(7-37)NH₂;
 (Aib⁸, Arg^{26,34}, β-Ala³⁵, Lys³⁷(N^ε-decanoyl))hGLP-1(7-37)NH₂; or
 10 (Aib⁸, Arg^{26,34}, β-Ala³⁵, Lys³⁷(N^ε-tetradecanoyl))hGLP-1(7-37)NH₂;
 or a pharmaceutically acceptable salt thereof.

- 15 17. Use of a compound as claimed in any of claims 1 to 10, or 15 or 16,
 in the preparation of a medicament for the treatment of disease.

18. Use as claimed in claim 17, in which the disease is selected from the
 group consisting of Type I diabetes, Type II diabetes, obesity, glucagonomas,
 secretory disorders of the airway, metabolic disorder, arthritis, osteoporosis, central
 nervous system disease, restenosis and neurodegenerative disease.